

W. T. JOHNSTON.

Embroidering Attachment for Sewing Machines.

No. 93,093.

Patented July 27, 1869.

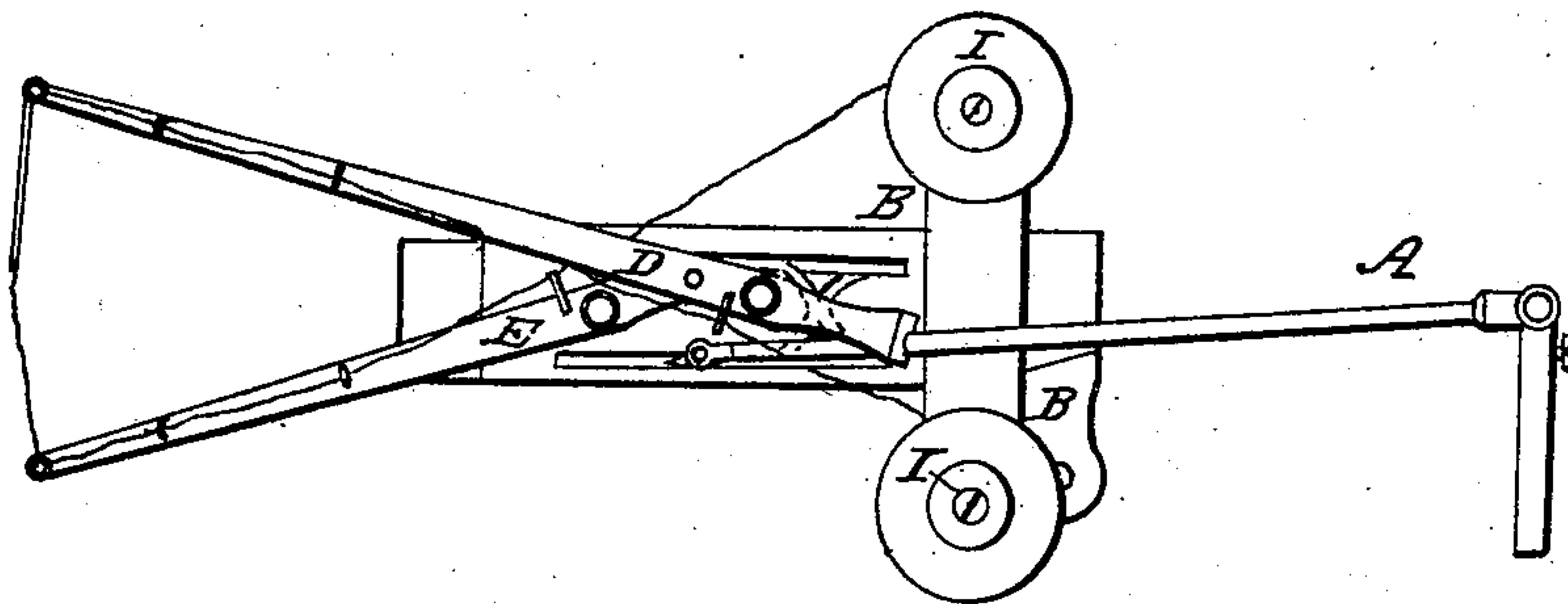


Fig. 2

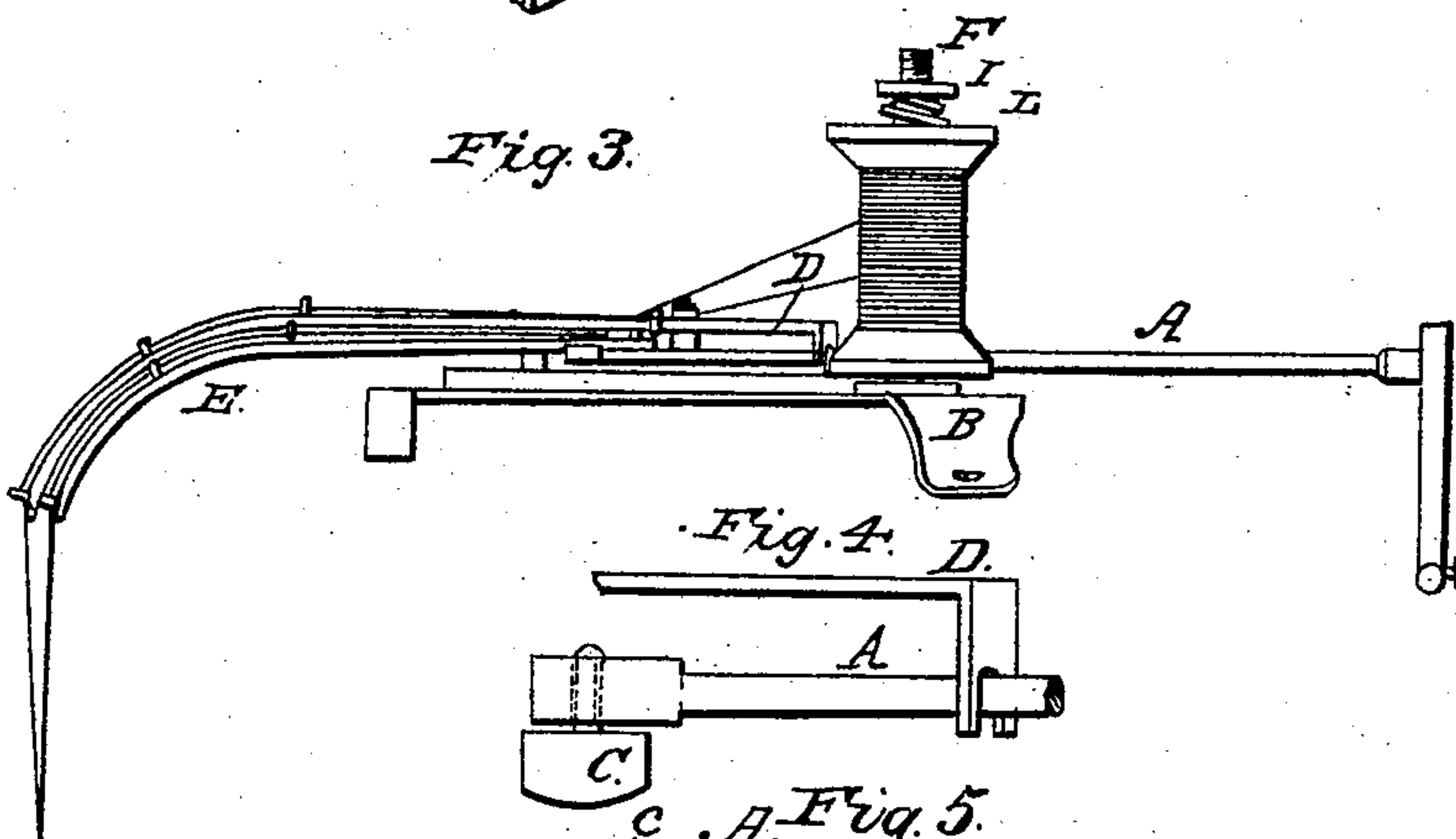


Fig. 3.

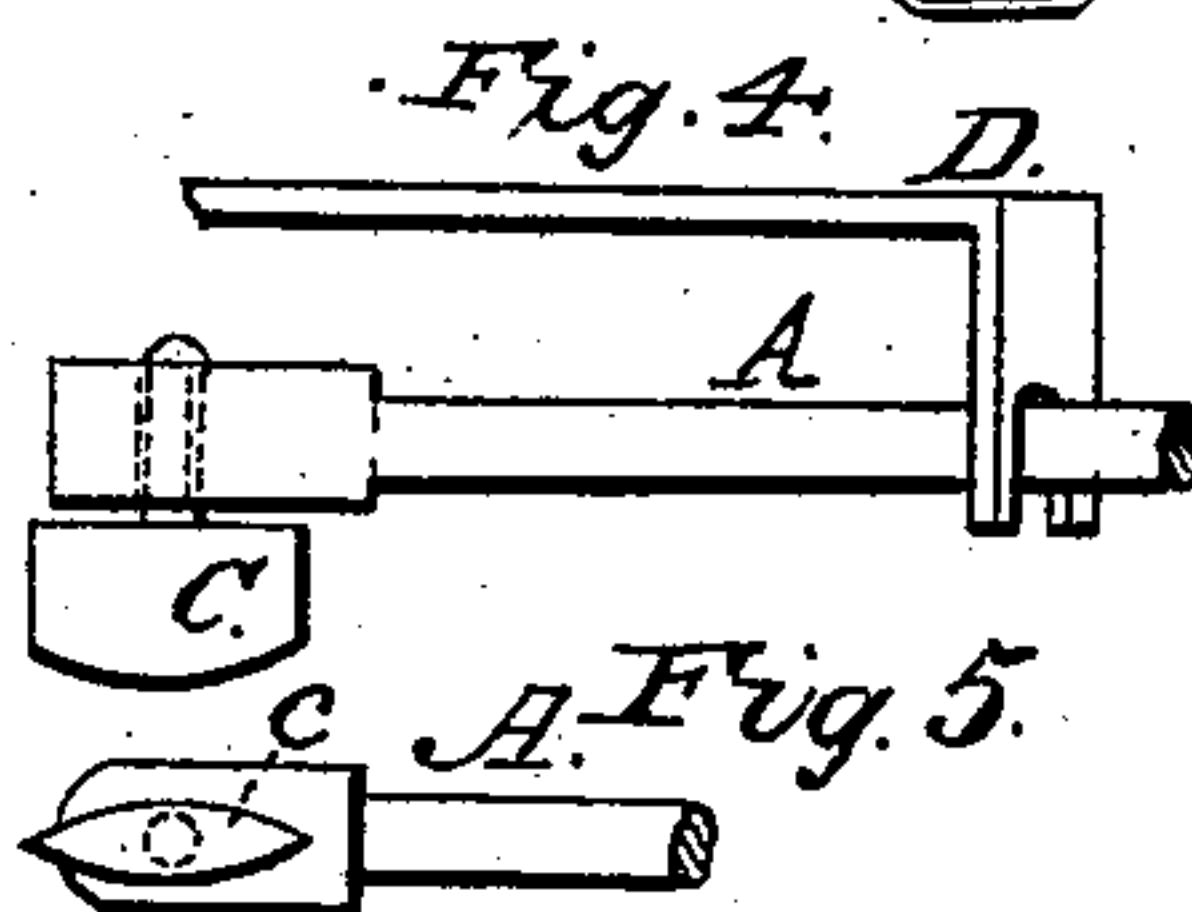
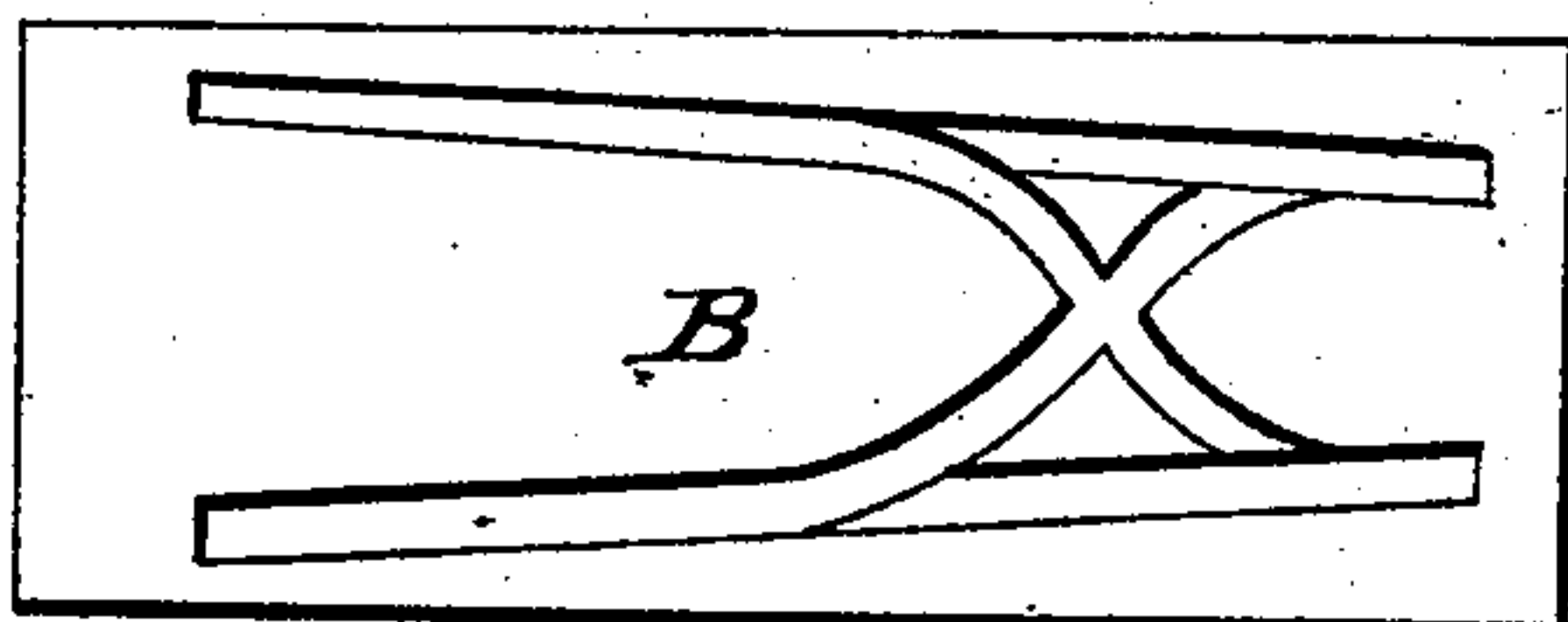


Fig. 4.

Fig. 5.

Fig. 6.



Witnesses  
Harry King  
Leopold Evert

Inventor:  
Wm J. Johnson  
per  
Alexander Mason  
Atty.

# UNITED STATES PATENT OFFICE.

WILLIAM T. JOHNSTON, OF OTTUMWA, IOWA.

## IMPROVEMENT IN EMBROIDERING ATTACHMENTS FOR SEWING-MACHINES.

*Specification forming part of Letters Patent No. 93,093, dated July 27, 1869.*

*To all whom it may concern:*

Be it known that I, WILLIAM T. JOHNSTON, of Ottumwa, in the county of Wapello, and in the State of Iowa, have invented new and useful Embroidering Attachments for Sewing-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to provide an embroidering device for sewing-machines which will embroider with threads of a different color; and consists in the arrangement of certain devices, which are fully described below.

Figure 1 represents a plan view of my invention. Fig. 2 is a view of one of the ends of the arms for guiding the thread, showing the slot through which it is pivoted to the other. Fig. 3 is a side elevation. Fig. 4 is an enlarged view of the rod passing through the opening in the end of one of the arms for guiding the thread. Fig. 5 represents an enlarged view of the stud or cam as it is attached to the end of the rod. Fig. 6 is a plan view of the grooved plate in which the cam or stud operates.

In order to attach my embroidering device to a sewing-machine for use, it is necessary to remove the slack-thread pin, and place the crooked or bent arm A in its place. The check-spring screw is then taken out, and the plate B passed over the hole, so that when the screw is again put in its place, it will pass through the hole in the plate B, so as to secure it to the machine. This plate, at the point where the screw passes through, is bent downward, as seen in Fig. 3, so that it holds the embroiderer up clear from the frame. The presser-feet are also removed, and the ones belonging to the attachment put on, and the thread then passed through loops in each of the arms.

The plate B, upon its surface, has two grooves cut in it, as seen in Fig. 6, slightly nearer to each other at one end than the other, and then has two smaller ones across the face, connecting the two others. In these grooves the small stud C upon the end of the rod A is made to play backward and forward, for the

purpose of operating the arms D and E, which carry the thread. When the stud or cam is at the end of the groove, toward the spools, it first runs the entire length of the groove, returning in the same manner, until it comes to the short groove branching across, where, striking an obstruction, it is thrown into this groove, and so crosses over to the groove on the opposite side, where the same thing is again repeated. Rising from the plate B is a small post, upon which the longer arm D is pivoted, so as to allow it a free vibrating motion. One end of the arm D has an opening made in it large enough to allow the rod A to pass under, while the other end is curved downward. Upon a straight line with this post there is placed a second one, which does not rise quite so high, and upon which the second arm E is pivoted, so as to allow it the same motion as the other. The inner end has a slot cut in it, as seen in Fig. 2, so that it can be pivoted to the arm D, while the other end is curved downward. Upon the sides and tops of these two arms D and E there are placed a number of small loops for holding and guiding the threads as they are run off from the spools.

Upon each side of the plate B there are secured two small upright posts for holding the spools upon which the silk or thread is placed. These two posts F are cut like a screw around their tops, so as to receive the nuts I, and also have slots running down through their centers, into which the ends of the spiral springs L are placed. After the spools have been placed upon the posts, the spiral springs are placed on top, and then the nuts are screwed on. By this device the spools are held firmly in their places, and at the same time, by the giving of the springs, can accommodate themselves to the jarring of the machine.

As it is intended to embroider cloth, the thread or silk upon each of these spools should be of a different color; and as both threads pass the same needle, and as the two arms are constantly crossing over one another by the movement of the cam, the ornamentation will be of alternate colors.

This embroiderer can be attached to almost any machine; but it is especially intended for Singer's.



Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The rod A, provided with the stud or cam C, arms D and E, and grooved plate B, in combination with the posts F, nuts N, and springs L, when all are constructed, arranged, and operated in the manner and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of March, 1869.

WILLIAM T. JOHNSTON.

Witnesses:

RANKIN SMITH,  
ALLEN JOHNSTON.